

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

September 15, 2015

Mr. Dana Bayuk
Oregon Department of Environmental Quality
Northwest Region, Portland Office
Portland Harbor Section
700 NE Multnomah Street, #600
Portland, Oregon 97232

HAI Project No. 2708
DEQ ECSI File No. 84

**SUBJECT: Progress Report, NW Natural Site, 7900 NW St. Helens Avenue and
7200 NW Front Avenue, Portland, Oregon**

Dear Mr. Bayuk:

Hahn and Associates, Inc. (HAI) has prepared this monthly Progress Report to summarize Remedial Investigation/Feasibility Study (RI/FS) and source control-related work activities conducted by NW Natural relating to historic manufactured gas plant (MGP) activities at the NW Natural Site during the month of August 2015. NW Natural is completing upland investigation and cleanup activities at the NW Natural Site under the Voluntary Agreement No. ECVC-WMCVC-NWR-94-13 (Voluntary Agreement) between NW Natural and the Oregon Department of Environmental Quality (DEQ).

1.0 Communications and Document Submittals

In correspondence dated August 3, 2015 (Terry Driscoll to Rob Burkhart), ADA, Inc., on behalf of NW Natural, transmitted the *Total Cyanide Treatment Optimization Report, NW Natural Source Control Groundwater Treatment Facility*, to DEQ as required by NPDES Permit No. 103061.

A teleconference was conducted with DEQ on August 10, 2015 (John Renda to Dana Bayuk) to discuss Phase 2 testing reporting requirements; TarGOST boring installations; DNAPL monitoring; and installation of a supplemental PW-1U well.

In correspondence dated August 13, 2015 (Dana Bayuk to Halah Voges), DEQ provided feedback on NW Natural's draft proposed Gasco Upland Feasibility Study (FS) schedule and work plan outline in advance of discussions to occur during an August 17, 2015 meeting.

A teleconference was conducted with DEQ on August 14, 2015 (John Renda to Dana Bayuk) to discuss the TarGOST boring schedule.

A meeting with representatives of NW Natural and DEQ was conducted on August 17, 2015 to discuss the process and schedule for moving forward with the upland Gasco Site FS.

In correspondence dated August 20, 2015 (Rob Burkhart to Bob Wyatt), based on review of the August 3, 2015 *Total Cyanide Treatment Optimization Report*, DEQ provided approval for NW Natural to continue using the total cyanide mixing zone as described in the NPDES permit.

A teleconference was conducted with DEQ on August 25, 2015 (John Renda to Dana Bayuk) to discuss recommended changes to the groundwater monitoring and DNAPL monitoring programs.

In correspondence dated August 25, 2015 (John Renda to Dana Bayuk), Anchor QEA, on behalf of NW Natural and at the request of DEQ, transmitted a summary of conversations and agreements from phone teleconferences conducted during August 2015.

In correspondence dated August 28, 2015 (Halal Voges to Dana Bayuk), Anchor QEA, on behalf of NW Natural, transmitted the slide presentation and summary of agreements/outcomes from the August 17, 2015 Gasco FS check-in meeting.

2.0 Field Work

HAI field activities related to monitoring and maintenance of the dense non-aqueous phase liquid (DNAPL) extraction system at surficial fill well locations MW-6-32 and MW-13-30 occurred during August 2015. The storage tank containing recovered DNAPL reached capacity in the late July / early August time-frame and the system automatically shut down. The system remained off during August as arrangements were made to have the contents pumped out for transport to a permitted re-refining facility.

Tasks related to optimization and maintenance of the HC&C system and the groundwater treatment system were conducted in August 2015, with the system operating under Phase 2 testing parameters since July 21, 2015.

Baseline DNAPL removal as needed to maintain at levels below the top of the well sumps was conducted by Anchor QEA during July 2015 in the following wells near the river shoreline.

- MW-26U
- MW-27U
- MW-38U
- MW-PW-2L
- PW-2L

On March 31, 2014 NW Natural discontinued routine discharges of treated groundwater to the sanitary sewer (Industrial Wastewater Discharge Permit 500.022). During August 2015 all water was directed to NW Natural's on-site wastewater treatment plant and discharged to the Willamette River consistent with National Pollutant Discharge Elimination System (NPDES) Permit No. 103061 (expires August 31, 2018). Results from NW Natural's NPDES effluent sampling are provided to DEQ in Discharge Monitoring Reports that are submitted on a monthly basis in accordance with the permit. A total of 11,941,899 gallons of treated water were discharged under the NPDES permit during August.

3.0 Anticipated Activities September and October 2015

NW Natural and DEQ technical working group communications and meetings are anticipated to occur as needed during September and October 2015 to discuss ongoing project tasks.

The draft Feasibility Study Work Plan for the Gasco Uplands will be under development during the indicated time-frame, with monthly DEQ check-in meetings scheduled over the duration of the plan development.

The *HC&C Model Calibration and Validation Report* is in preparation for submittal to DEQ after agreements with the agency are reached related to model calibration.

Long-term HC&C system operation, initiated during July 2015 and initially approved for nine months, will continue through indicated timeframe.

A Contaminated Materials Management Plan is being prepared for submittal in the fall of 2015.

The *Groundwater Treatment System Operations and Maintenance Manual*, prepared by Severson Environmental Services, Inc., dated May 2015 is being updated based on feedback provided by DEQ and DOJ and will be resubmitted in the fall of 2015.

Initiation of supplemental Doane Creek investigation activities will occur once access agreements with the off-site property owners (Portland & Western Railroad and Burlington Northern & Santa Fe Railway Company) are received, which is anticipated to occur in September. The application and fee payments to BNSF for access agreement initiation was be transmitted during August (submitted August 11, 2015).

The next integrated groundwater monitoring event is scheduled to occur in September 2015. DEQ approval or comments on proposed changes to the integrated monitoring plan (Anchor QEA, July 17, 2015) are needed soon in order to complete the September monitoring event.

The following reports and work plans for the Site have been submitted to DEQ through the date of this progress report. Unless otherwise noted, NW Natural has not received DEQ comments on these documents.

- *Fill WBZ Trench Design Evaluation Report, Gasco/Siltronic*, prepared by Anchor QEA, dated April 8, 2015.
- *Hydraulic Control and Containment (HC&C) System Operation and Maintenance (O&M) Manual*, prepared by Anchor QEA, dated May 1, 2015
- *HC&C Capture Performance and Monitoring Plan (PMP)*, prepared by Anchor QEA, dated May 1, 2015.
- *Groundwater Quality Monitoring Data Report, NW Natural Gasco Site*, dated July 17, 2015. This report includes proposed modifications to the integrated monitoring schedule.

Should you have any questions, please contact the undersigned.

Sincerely,

Ben Uhl -for-

Rob Ede, R.G.
Principal

robe@hahnenv.com

Cc: Mr. Bob Wyatt, NW Natural (electronic only)
Ms. Patty Dost, Pearl Legal Group PC (electronic only)
Ms. Rachel Melissa, Pearl Legal Group PC (electronic only)
Ms. Sarah Riddle, Pearl Legal Group PC (electronic only)
Mr. Carl Stivers, Anchor QEA, L.L.C. (electronic only)
Mr. John Edwards, Anchor QEA, L.L.C. (electronic only)
Mr. Ben Hung, Anchor QEA, L.L.C. (electronic only)
Mr. Ryan Barth, Anchor QEA, L.L.C. (electronic only)
Ms. Halah Voges, Anchor QEA, L.L.C., (electronic only)
Mr. Henning Larsen, DEQ NW Region (electronic only)
Mr. Keith Johnson, DEQ NW Region (electronic only)
Mr. Dan Hafley, DEQ NW Region (electronic only)
Mr. Myron Burr, Siltronic Corporation (electronic only)
Ms. Kristine Koch, Region 10 EPA (electronic only)
Mr. Sean Sheldrake, Region 10 EPA (electronic only)
Mr. Rene Fuentes, Region 10 EPA (electronic only)
Mr. Lance Peterson, CDM, Inc. (electronic only)